SEQUENCE LISTING

<110> Olsen et al.

<120> Stanniocalcin Polynucleotides, Polypeptides, and Methods Based Thereon

<130> PF108P2

<140> US 09/840,989
<141> 2001-04-25

<150> PCT/US00/29432
<151> 2000-10-26

<150> US 60/161,740
<151> 1999-10-27

<160> 12

<170> PatentIn version 3.1

<210> 1
<211> 1283
<212> DNA
<213> Homo sapiens

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1

tca gca gtg ctt ctg gtg ctg gtg atc agt gct tct gca acc cat gag 104
Ser Ala Val Leu Leu Val Leu Val Ile Ser Ala Ser Ala Thr His Glu
5 10 15 20

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gcg gag cag aat gac tct gtg agc ccc agg aaa tcc cga gtg gcg gcc      152
Ala Glu Gln Asn Asp Ser Val Ser Pro Arg Lys Ser Arg Val Ala Ala
                25                  30                  35

caa aac tca gct gaa gtg gtt cgt tgc ctc aac agt gct cta cag gtc      200
Gln Asn Ser Ala Glu Val Val Arg Cys Leu Asn Ser Ala Leu Gln Val
            40                  45                  50

ggc tgc ggg gct ttt gca tgc ctg gaa aac tcc acc tgt gac aca gat      248
Gly Cys Gly Ala Phe Ala Cys Leu Glu Asn Ser Thr Cys Asp Thr Asp
        55                  60                  65

ggg atg tat gac atc tgt aaa tcc ttc ttg tac agc gct gct aaa ttt      296
Gly Met Tyr Asp Ile Cys Lys Ser Phe Leu Tyr Ser Ala Ala Lys Phe
    70                  75                  80

gac act cag gga aaa gca ttc gtc aaa gag agc tta aaa tgc atc gcc      344
Asp Thr Gln Gly Lys Ala Phe Val Lys Glu Ser Leu Lys Cys Ile Ala
85                  90                  95                  100

aac ggg gtc acc tcc aag gtc ttc ctc gcc att cgg agg tgc tcc act      392
Asn Gly Val Thr Ser Lys Val Phe Leu Ala Ile Arg Arg Cys Ser Thr
                105                 110                 115

ttc caa agg atg att gct gag gtg cag gaa gag tgc tac agc aag ctg      440
Phe Gln Arg Met Ile Ala Glu Val Gln Glu Glu Cys Tyr Ser Lys Leu
            120                 125                 130

aat gtg tgc agc atc gcc aag cgg aac cct gaa gcc atc act gag gtc      488
Asn Val Cys Ser Ile Ala Lys Arg Asn Pro Glu Ala Ile Thr Glu Val
        135                 140                 145

gtc cag ctg ccc aat cac ttc tcc aac aga tac tat aac aga ctt gtc      536
Val Gln Leu Pro Asn His Phe Ser Asn Arg Tyr Tyr Asn Arg Leu Val
    150                 155                 160

cga agc ctg ctg gaa tgt gat gaa gac aca gtc agc aca atc aga gac      584
Arg Ser Leu Leu Glu Cys Asp Glu Asp Thr Val Ser Thr Ile Arg Asp
165                 170                 175                 180

agc ctg atg gag aaa att ggg cct aac atg gcc agc ctc ttc cac atc      632
Ser Leu Met Glu Lys Ile Gly Pro Asn Met Ala Ser Leu Phe His Ile
                185                 190                 195

ctg cag aca gac cac tgt gcc caa aca cac cca cga gct gac ttc aac      680
Leu Gln Thr Asp His Cys Ala Gln Thr His Pro Arg Ala Asp Phe Asn
            200                 205                 210

agg aga cgc acc aat gag ccg cag aag ctg aaa gtc ctc ctc agg aac      728
Arg Arg Arg Thr Asn Glu Pro Gln Lys Leu Lys Val Leu Leu Arg Asn
        215                 220                 225

ctc cga ggt gag gag gac tct ccc tcc cac atc aaa cgc aca tcc cat      776
Leu Arg Gly Glu Glu Asp Ser Pro Ser His Ile Lys Arg Thr Ser His
    230                 235                 240

gag agt gca taa ccagggagag gttattcaca acctcaccaa actagtatca          828
Glu Ser Ala
245
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ttttaggggt gttgacacac cagttttgng tgtactgtgc ctggtttggt ttttttaaag 888

tagttcctat tttctatccc ccttaaagaa aattgcatga aactaggctt ctgtaatcaa 948

tatcccaaca ttctgcaatg ggaggattcc caccaacaaa atccatgtga acattcttgc 1008

tctcctcagg agaaagtacc ctctttttac caacttcctc tgccatgttt ttcccctgct 1068

cccctgagac cacccccaaa cacaaaacat tcatgtaact ctccagccat tgtaatttga 1128

agatgtggat ccctttagaa acggttgccc cagtagagtt agctgataag gaaactttat 1188

ttaaatgcat gtcttaaatg ctcataaaga tgttaaatgg aattcgtgtt atgaatctgt 1248

gctggncatg gacgaaaaaa aaaaaaaaaa naaaa 1283

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<213> Homo sapiens

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Arg Val Ala Ala Gln Asn Ser Ala Glu Val Val Arg Cys Leu Asn Ser
35 40 45

Ala Leu Gln Val Gly Cys Gly Ala Phe Ala Cys Leu Glu Asn Ser Thr
50 55 60

Cys Asp Thr Asp Gly Met Tyr Asp Ile Cys Lys Ser Phe Leu Tyr Ser
65 70 75 80

Ala Ala Lys Phe Asp Thr Gln Gly Lys Ala Phe Val Lys Glu Ser Leu
85 90 95

Lys Cys Ile Ala Asn Gly Val Thr Ser Lys Val Phe Leu Ala Ile Arg
100 105 110

Arg Cys Ser Thr Phe Gln Arg Met Ile Ala Glu Val Gln Glu Glu Cys
115 120 125

Tyr Ser Lys Leu Asn Val Cys Ser Ile Ala Lys Arg Asn Pro Glu Ala
130 135 140

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Ile Thr Glu Val Val Gln Leu Pro Asn His Phe Ser Asn Arg Tyr Tyr
145                 150                 155                 160

Asn Arg Leu Val Arg Ser Leu Leu Glu Cys Asp Glu Asp Thr Val Ser
                165                 170                 175

Thr Ile Arg Asp Ser Leu Met Glu Lys Ile Gly Pro Asn Met Ala Ser
            180                 185                 190

Leu Phe His Ile Leu Gln Thr Asp His Cys Ala Gln Thr His Pro Arg
        195                 200                 205

Ala Asp Phe Asn Arg Arg Arg Thr Asn Glu Pro Gln Lys Leu Lys Val
    210                 215                 220

Leu Leu Arg Asn Leu Arg Gly Glu Glu Asp Ser Pro Ser His Ile Lys
225                 230                 235                 240

Arg Thr Ser His Glu Ser Ala
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<212> PRT
<213> Oncorhynchus kisutch

<400> 3

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Ala Ala Thr Phe Asp Thr Asp Pro Glu Glu Ala Ser Pro Arg Arg Ala
            20                  25                  30

Arg Phe Ser Ser Asn Ser Pro Ser Asp Val Ala Arg Cys Leu Asn Gly
        35                  40                  45

Ala Leu Ala Val Gly Cys Gly Thr Phe Ala Cys Leu Glu Asn Ser Thr
    50                  55                  60

Cys Asp Thr Asp Gly Met His Asp Ile Cys Gln Leu Phe Phe His Thr
65                  70                  75                  80

Ala Ala Thr Phe Asn Thr Gln Gly Lys Thr Phe Val Lys Glu Ser Leu
                85                  90                  95
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Arg Cys Ile Ala Asn Gly Val Thr Ser Lys Val Phe Gln Thr Ile Arg
100 105 110

Arg Cys Gly Val Phe Gln Arg Met Ile Ser Glu Val Gln Glu Glu Cys
115 120 125

Tyr Ser Arg Leu Asp Ile Cys Gly Val Ala Arg Ser Asn Pro Glu Ala
130 135 140

Ile Gly Glu Val Val Gln Val Pro Ala His Phe Pro Asn Arg Tyr Tyr
145 150 155 160

Ser Thr Leu Leu Gln Ser Leu Leu Ala Cys Asp Glu Glu Thr Val Ala
165 170 175

Val Val Arg Ala Gly Leu Val Ala Arg Leu Gly Pro Asp Met Glu Thr
180 185 190

Leu Phe Gln Leu Leu Gln Asn Lys His Cys Pro Gln Gly Ser Asn Gln
195 200 205

Gly Pro Asn Ser Ala Pro Ala Gly Trp Arg Trp Pro Met Gly Ser Pro
210 215 220

Pro Ser Phe Lys Ile Gln Pro Ser Met Arg Gly Arg Asp Pro Thr His
225 230 235 240

Leu Phe Ala Arg Lys Arg Ser Val Glu Ala Leu Glu Arg Val Met Glu
245 250 255

<210> 4
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<212> DNA
<213> Homo sapiens

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aattcgaggg tgcaccgtca gtcttcctct tcccccaaa acccaaggac accctcatga 120

tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg 180

tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240

aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300

ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg 360

agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420

catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480

atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540

ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg 600

acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660

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gactctagag gat 733

<210> 5
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Contains a SphI restriction enzyme site.

<400> 5
gactgcatgc tccaaaactc agcagtg 27

<210> 6
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Contains complementary sequences to a BglII restriction site.

<400> 6
gactagatct tgcactctca tgggatgtgc g 31

<210> 7
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Contains a BamHI restriction enzyme site followed by 6 nucleotides resembling an efficient signal for the initiation of translation in eukaryotic cells.

<400> 7
cagtggatcc gccaccatgc tccaaaactc agcagtg 37

<210> 8
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Contains the cleavage site for the restriction endonuclease Asp718.

<400> 8
cagtggtacc ggttgtgaat aacctctccc 30

<210> 9
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Contains a BamHI restriction enzyme site followed by 6 nucleotide
s resembling the efficient signal for translation.

<400> 9
cagtggatcc gccaccatgc tccaaaactc agcagtg 37

<210> 10
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Contains the cleavage site for the restriction endonuclease BamHI

<400> 10
cagtggatcc ggttgtgaat aacctctccc 30

<210> 11
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR amplification of the EGR-1 promoter sequence.

<400> 11
gcgctcgagg gatgacagcg atagaacccc gg 32

<210> 12
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for PCR amplification of the EGR-1 promoter sequence.

<400> 12
gcgaagcttc gcgactcccc ggatccgcct c 31